

U.S. Patent Application Serial No. 10/576,193
Amendment filed December 22, 2008
Reply to OA dated August 28, 2008

REMARKS

Claims 1-18 are pending in this application. Claims 4, 7, 13 and 16 are canceled without prejudice or disclaimer, and claims 1 and 10 are amended herein. Upon entry of this amendment, claims 1-3, 5, 6, 8-12, 14, 15, 17 and 18 will be pending. The specification is amended herein. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is discussed below.

The disclosure is objected to because of informalities. The specification is missing the required sections and headings. (Office action p. 2)

The objection is overcome by the amendments to the specification, in which the headings in the specification have been amended to be consistent with the preferable ordering of the elements of the application (see MPEP 608.01(a)). Applicant has not included section headings with the text "not applicable" where there is no corresponding section, as this is not mandatory.

Claim 10 is objected to because of informalities. Claim 10 should begin on a separate line for clarity. (Office action p. 3)

The Examiner refers to a typographic error in the original specification, in which there is no line spacing between the end of claim 9 and the beginning of line 10. This typographical error is corrected in the present amendment.

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Claims 1-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/576,277. (Office action paragraph no. 1)

The rejection is obviated by the filing of a terminal disclaimer over USSN 10/576,277. The terminal disclaimer paper is filed concurrently with this amendment.

Claims 1-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tomioka (U.S. Pat. No. 5,079,030) in view of Carpenter (U.S. Pat. No. 5,320,673) and Takashi et al. (JP Pub. No. 2001-149857). (Office action paragraph no. 2)

Reconsideration of the rejection is requested in view of the amendments to the claims and the attached Declaration under 37 CFR 1.132 by Tsukasa FUJIEDA.

Claim 1 is amended herein to limit the solids contents of aqueous luster thermosetting base coating composition (A) used in step (1) and aqueous luster thermosetting base coating composition (C) used in step (3) to 5 to 15 wt. %, as supported by page 16, lines 26-31, and page 18, lines 27-32 of the specification. In addition, claim 1 is amended to incorporate the limitation of claim 4, that in step (1), the solids content of the aqueous luster thermosetting base coating composition (A) one minute after the application in each stage is at least 40%. Claim 1 has also been amended to incorporate the limitation of claim 7 regarding the solids content of the aqueous luster thermosetting base coating composition (C) in step (3). In addition, claim 1 is limited to recite that the applied

composition is allowed to stand, or is preheated at 50°C to 80°C after each coating stage in steps (1) and (3), as supported by page 16, lines 22-26, and page 18, lines 23-27, of the specification.

Claim 10 is amended to limit the solids contents of aqueous luster thermosetting base coating composition (A) used in step (1) and aqueous luster thermosetting base coating composition (C) used in step (3) to 5 to 15 wt. %, as supported by page 16, lines 26-31, and page 18, lines 27-32 of the specification. In addition, claim 1 is amended to incorporate the limitation of claim 13, that in step (1), the solids content of the aqueous luster thermosetting base coating composition (A) one minute after the application in each stage is at least 40%. Claim 1 has also been amended to incorporate the limitation of claim 16 regarding the solids content of the aqueous luster thermosetting base coating composition (C) in step (3). In addition, claim 10 is limited to recite that the applied composition is allowed to stand, or is preheated at 50°C to 80°C after each coating stage in steps (1) and (3), as supported by page 16, lines 22-26, and page 18, lines 23-27, of the specification.

In the rejection, the Examiner cites Tomioka for disclosing a method of forming a luster coating film comprising three steps:

- 1) applying an aqueous luster base coating composition in two to five stages ...
- 2) applying a clear coating composition over the uncured or heat-cured coating layer of the base coating composition; and
- 3) heating the two-layer coating composition to obtain a cured two-layer coating film.

The Examiner also cites Tomioka as applying the base coating to a thickness of 8 microns (thereby meeting the limitation of claim 3, and meeting the "at least 40 wt%" limitation of claim 4.

The Examiner states that Tomioka does not explicitly teach that the base coatings and clear coatings are thermosetting coatings, and does not teach the additional step of applying a second set of base coating and clear coating compositions.

Carpenter is cited for teaching a method of forming a luster coating using an aqueous luster base coat and a clear coat (citing column 16, lines 54-68), and that these may be thermosetting compositions comprising water-soluble or dispersible crosslinking functional group-containing resin, crosslinking agent, and a flaky luster pigment. The Examiner also cites Takashi for teaching forming a luster coating by forming a first metallic coating followed by a clear coat and then further applying a second metallic coating an a second clear coat, followed by curing.

The Examiner states that it would have been obvious to modify Tomioka's method by adding an additional base coat and clear coat layer, as taught by Takashi, and to use the compositions and an additional clear coat layer as disclosed by Carpenter, to obtain a four- or five-layer coating.

Applicant submits, however, that the amended claims are distinguished from the Tomioka, Takashi and Carpenter references.

In amended base claims 1 and 10 of the present invention, the solids contents of aqueous luster thermosetting coating base compositions (A) and (C) are about 5 to about 15 wt. %. Applicant submits that this achieves the excellent film-forming properties of the composition in each stage, which makes it possible to suitably apply the coating composition in each stage.

In addition, in steps (1) and (3) of the amended claims, an interval is provided in each stage to, for example, allow the coating composition to stand, and the solids content of the coating

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composition one minute after the application in each stage is at least 40 wt. %, so that the flaky luster pigment is easily orientated parallel to the coating surface, resulting in an improved dense texture and flip-flop property (page 16, line 32 to page 17, line 1; and page 18, line 33 to page 19, line 2 of the specification).

This is demonstrated by evidence from Table 1 (p. 33) of the present application and the data in the attached Declaration under 37 CFR 1.132. In Examples 1 and 2 in Table 1, in which the solids content one minute after the application in each stage is 40 wt.% or more, a luster coating film with excellent density of texture and flip-flop property is formed. The Declaration presents data for Comparative Example A, in which the solids content of the applied coating composition one minute after the application in each stage is less than 40 wt. %, and in which a luster coating film with insufficient density of texture and flip-flop property is formed.

Tomioka nowhere discloses or suggests setting the solids content of the composition after the application in each stage to within a specific range. In Tomioka, although a time interval is provided at least between the application step using a rotary atomizer and the application step using an air pressure spray gun, there is apparently no time interval provided in repeating steps using an air pressure spray gun (claims 1, 3, 4, and 5). Specifically, in Tomioka, an interval is provided only after the first step; however, **the process moves from the second step to the third step with no interval.**

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Therefore, the method of Tomioka is completely different from the present method, which requires the step of allowing the applied composition to stand, or preheating the composition at 50°C to 80°C after each coating stage.

Moreover, Tomioka and Carpenter nowhere suggest the technical concept of providing an interval in each stage of adjust the solids content of the applied composition.

Further, Takashi does not disclose applying metallic composition (A) or the like in each divided stage.

Therefore, there is no disclosure or suggestion in the cited references for the limitations of the amended claims. Moreover, the results commensurate in scope with the present invention--that is, the advantageous effect that the flaky luster pigment is easily orientated parallel to the coating surface by limiting the solids content of the coating composition one minute after the application in each stage to at least 40 wt. %, which results in excellent density of texture and flip-flop property--is unexpected over the cited references.

Claims 1-3, 5, 6, 8-12, 14, 15, 17 and 18 are therefore not obvious over Tomioka (U.S. Pat. No. 5,079,030), Carpenter (U.S. Pat. No. 5,320,673) and Takashi et al. (JP Pub. No. 2001-149857), taken separately or in combination.

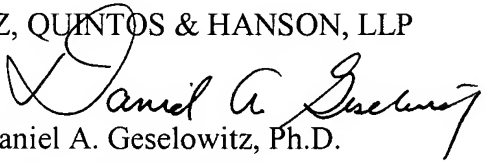
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Petition for Extension of Time
Terminal Disclaimer
Declaration under 1.132

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